

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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LEVERAGED INNOVATIONS, LLC,

Plaintiff,

-v-

NASDAQ OMX GROUP, INC.,
NASDAQ OMX BX, INC.,
NASDAQ OMX BX EQUITIES LLC,
NASDAQ OMX PHLX, INC.,
THE NASDAQ STOCK MARKET LLC,
PROSHARE ADVISORS LLC,
PROSHARES TRUST I, and
PROSHARES TRUST II,

Defendants.
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11 Civ. 3203 (KBF)

OPINION AND ORDER

(MARKMAN)

KATHERINE B. FORREST, District Judge:

In May 2011, plaintiff Leveraged Innovations, LLC ("Leveraged" or "plaintiff") sued a variety of NASDAQ-related entities (set forth in the caption and referred to collectively as "NASDAQ"), and ProShares Advisors LLC, ProShares Trust I and ProShares Trust II (referred to collectively as "ProShares," or, together with the NASDAQ defendants, as "defendants") for patent infringement. (Compl., ECF No. 1.) Defendants counterclaimed for invalidity and declarations of non-infringement. (NASDAQ Answer, ECF No. 25; ProShares Answer, ECF No. 38.) On April 20, 2012, this Court dismissed the claims against the ProShares defendants. (Mem. & Order, ECF No. 74, 2012 WL 1506524.) The remaining parties have now asked the Court to construe certain

terms relevant to ultimate determinations of infringement and validity. Accordingly, this Opinion construes those terms.

I. THE INVENTION

Plaintiff has asserted that NASDAQ has infringed claims in two related patents: U.S. Patent No. 7,698,192 (filed Apr. 20, 2001) (" '192 Patent") and U.S. Patent No. 7,917,422 (filed Dec. 31, 2009) (" '422 Patent"). The patents share a single specification and claim priority back to an application first filed on October 12, 1995: App. No. 08/542,431, which eventually issued as U.S. Patent No. 5,806,048.¹

Both patents-in-suit relate generally to systems for creating and exchanging leveraged exchange-traded products ("ETPs"). Both are entitled "Open End Mutual Fund Securitization Process." '192 Patent at [54]; '422 Patent at [54]. The '192 Patent claims systems for creating and for exchanging leveraged ETPs, '192 Patent cols.8-14; the claims of the '422 Patent relate only to systems for exchanging leveraged ETPs, '422 Patent cols.8-10. The NASDAQ defendants are accused of infringing the exchange-related claims in both patents. (See Compl. ¶ 4, ECF No. 1.)

The patents-in-suit sought to address an inability to trade open-ended mutual funds on an intra-day basis. See '192 Patent

¹ Because the specifications for the two patents are nearly identical, this Opinion will provide citations only to the '192 Patent when citing the specifications. All citations to other portions of the two patents will be to either the '192 Patent or the '422 Patent or both, as necessary.

col.2 1.65-col.3 1.4. While at the time of the invention there were thousands of mutual funds, they could not be traded intra-day on a national securities exchange (nor could any index of open end mutual funds, or any linked derivative). See id. col.1 1.16-col.2 1.61 (Background of the Invention). This limitation was due to the legal requirement that open end funds sell or buy back their shares at "net asset value" or "NAV." See id. col.1 11.16-37. It was simply too difficult to determine an exact value of the funds on a real-time, intra-day basis. Id. As a result, ninety-nine percent of all open ended funds allowed end of day trading only. Id. col.1 11.31-40. (The other one percent were sector funds, and were typically valued on an hourly basis. Id.) Mutual fund portfolio managers had created open end funds of funds -- open end funds that invest in other open end mutual funds. Id. col.1 11.44-49. In addition, a Standard and Poors Depository Receipt ("SPDR") was also created and was traded on the American Stock Exchange. Id. col.1 11.50-58. The SPDR represents a fractional share of a basket of stocks comprising the Standard and Poors 500 index. Id. The SPDR is not a mutual fund; it is a basket of stocks set up as a unit investment trust. Id.

In 1992, a bank created a basket of stocks which attempted to replicate the performance of a few, select open end sector funds. Id. col.1 11.59-63. This basket traded intra-day. Id.

There were problems with spreads (the price the buyer was willing to buy and seller willing to sell), due to the inability to calculate NAV more frequently than once per hour. Id. col.1 11.63-67. In addition, a brokerage firm called Jack White & Co. provided a computerized system and private market to allow investors to trade "a small number (less than six percent) of all open end mutual funds at a price other than the net asset value," so long as the buyer and seller could agree on a price. Id. col.2 11.9-14. Many professional investors operated pursuant to terms that required that they purchase only at the NAV. This, in turn, limited the volume of trading activity for this product. Id. col.2 11.14-20.

A solution to these issues, presented in the '192 and '422 Patents, was to create a "mutual fund securitization process permitting the trading of open end mutual funds and linked derivative securities on or off the floor of a National Securities Exchange." Id. at [57]; see also id. col.2 1.65-col.4 1.10 (Summary of the Invention); '422 Patent at [57] ("A computer implemented system is provided for exchanging shares in an exchange traded product."). This is accomplished through the creation of a new, separate security - "preferably a 'closed end fund of funds' and linked derivative securities." '192 Patent at [57]. The concept of the invention is that this new security will synthetically replicate the "statistical

relationship of the defined individual or group of open end mutual funds." Id. For the first time, the invention would provide a way for the "intra-day trading of an unlimited number of mutual fund indexes comprised of open end funds," and "intra-day trading of derivative securities linked to open end funds and indexes of open end funds." Id. col.2 l.65-col.3 l.4.

The invention would allow, inter alia:

- "Any open end fund, when securitized, [to be] listed on a stock exchange and traded at any [time] . . . regardless of the open end fund NAV," id. col.3 ll.21-23;
- Investors to "determine what price will be paid before an order is placed," id. col.3 ll.24-25;
- National securities exchanges ("NSEs") "to list derivatives on the securitized open end funds," id. col.3 ll.27-28; and
- Investors "to sell shares short [more quickly] and with greater liquidity," id. col.3 ll.51-52.

Finally, the invention could "act as a hedge for market makers who wish to lay off their risk of making markets in options on the underlying securities." Id. col.3 ll.30-32.

II. CLAIMS FOR CONSTRUCTION

Before the Court are the parties' requests for claim construction. Defendants and plaintiff have requested that this Court construe eleven terms or phrases used in the patents²:

1. "leveraged [exchange traded product/portfolio]";
2. "[leveraged] portfolio of securities";
3. "leveraged exchange traded portfolio";
4. "leveraged exchange traded computer";
5. "representing";
6. "configured for trading [of] shares of the leveraged exchange traded product at a real time determined price of the shares related to the underlying price of each of the selected securities comprising the leveraged exchange traded product and related to the respective weightings of the selected securities";
7. "trading";
8. "securities [. . .] satisfy[ing]";
9. "securities/derivatives . . . hav[e/ing]";
10. "open ended"; and

² The parties have agreed to the meaning of "[product/processor] is configured" and "[daily/monthly/quarterly/yearly/multi-year] basis." The text of those agreements is set forth in the document: "Claim Terms in Dispute as of July 30, 2012 and Agreed-Upon Definitions for Terms Initially Identified for Construction," ECF No. 138. The parties also requested the Court to construe: "a real[-]time determined price" and "price . . . related . . . to price [. . . and related to the respective weightings]." (*Id.* at 4.) These two terms are constituents of the sixth term the Court construes here. As the Court's construction of that term resolves the fundamental disagreement between the parties, the Court neither discusses nor construes these two terms separately.

11. "exchange clearing computer."

(Claim Terms in Dispute as of July 30, 2012 and Agreed-Upon Definitions for Terms Initially Identified for Construction ("Terms in Dispute"), ECF No. 138.) The Court construes these terms as set forth below.

III. THE TEMPORAL COMPLEXITY IN THIS MATTER

As discussed below in section IV.A, terms in a claim, and ultimately the claims themselves, are to be construed as of the time of the invention. See, e.g., Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). In particular, the court must determine how one skilled in the art -- at the time of the invention -- would have understood the term at issue. Id. Regardless of how a particular term was understood, however, the Court cannot construe claims to be broader than the actual invention. See Retractable Techs., Inc. v. Becton, Dickinson & Co., 653 F.3d 1296, 1305 (Fed. Cir. 2011).

Here, both patents-in-suit claim priority back to 1995 through a series of continuation applications. Under standard principles of claim construction, this Court must, then, determine how one skilled in the art of the invention would have understood the terms at issue as of that time. See Phillips, 415 F.3d at 1313.

Herein lies the problem: defendants contend that many of the terms and phrases that they have asked the Court to construe

had no meaning in 1995; that, in 1995, "leveraged exchange traded funds" ("leveraged ETFs") did not exist; that they only came into existence when ProShares introduced its first leveraged ETF in 2008. Thus, defendants' expert has anchored his understanding of the meaning of certain terms at issue in definitions dating from 2008. Of course, even if ProShares were the first to introduce a commercially available leveraged ETF (a determination this Court need not make), plaintiff may still have invented a system relating to leveraged ETFs at an earlier point in time. The two are not necessarily inconsistent.

At the Markman hearing, the Court raised the issue of this temporal disconnect between the 1995 application (to which the patents-in-suit claimed priority) and the 2008 ProShares ETF, posited by defendants' expert as determining the relevant time period for analysis. (See Markman Hr'g Tr. 4:9-5:8.) Defendants have not offered alternative meanings for these claims as of 1995, except, by implication, to urge that they were meaningless as of that time. This Court warned that if it disagreed with defendants' legal position, and maintained its view that the law requires the Court to ask what terms meant as of the priority date, then defendants would be left without expert support in this proceeding. (See id. 72:13-76:3.) Defendants did not ask to make additional submissions and clearly, as experienced counsel, understood the risk. The Court

also asked whether counsel was aware of a single instance in which a similar position had succeeded: that a party had urged that terms had no meaning as of the time of the invention and that the Court was therefore required to look ahead in time to construe them. Neither party was able to offer such an instance. (See id. 73:4-15, 75:9-12.)

This Court does not find a principled basis upon which to make 2008 the relevant time period in which to anchor the construction of any claim in this matter.

IV. LEGAL STANDARDS

A. Claim Construction

Claim construction is a question of law for the Court. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995), aff'd, 517 U.S. 370 (1996). Determining the meaning of terms within a claim assists a fact finder in making subsequent and ultimate decisions as to whether an invention has in fact been infringed, or is in fact valid. In construing the meaning of a term, the issue is not what that term would mean to an average lay person, but what that term or phrase would have meant to one "of ordinary skill in the art in question at the time of the invention." Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005). A court's job is, then, to try and place itself in the position of one of ordinary skill in the art of the invention(s) at issue.

A court may use intrinsic -- and, if necessary, extrinsic -- evidence in construing claims. See Nazomi Commc'ns, Inc. v. Arm Holdings, PLC, 403 F.3d 1364, 1368 (Fed. Cir. 2005) (instructing courts to look to intrinsic evidence first). Intrinsic evidence includes the claims and specifications in the patent itself, as well as the patent's file history (or wrapper). See, e.g., All Dental Prodx, LLC v. Advantage Dental Prods., Inc., 309 F.3d 774, 780 (Fed. Cir. 2002). The single most important source for the meaning of a term is the language of the claim itself, which defines the scope of the patent holder's exclusive rights. See Phillips, 415 F.3d at 1312. In patents with multiple claims using similar terms, such as the patents-in-suit, it is well accepted that terms in a claim should be construed consistently across claims. Southwall Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1579 (Fed. Cir. 1995) ("[C]laim terms must be interpreted consistently.").

One skilled in the art is "deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." Phillips, 415 F.3d at 1313. The specification is the "single best guide to the meaning of a disputed term." Id. at 1315; see also On Demand Mach. Corp. v. Ingram Indus., Inc., 442 F.3d 1331, 1338, 1340 (Fed. Cir. 2006) ("[T]he scope and outer boundary of claims is set by the

patentee's description of his invention," id. at 1338, and "the claims cannot be of broader scope than the invention that is set forth in the specification," id. at 1340.). However, although specifications contain one or more examples of the embodiment of an invention, they need not contain every possible embodiment. Therefore, courts should not read into the claims limitations based on the embodiments in the specification. See Phillips, 415 F.3d 1323; Innogenetics, N.V. v. Abbott Labs., 512 F.3d 1363, 1370 (Fed. Cir. 2008) ("[The defendant] argues that a patent can never be literally infringed by embodiments that did not exist at the time of filing. Our case law allows for after-arising technology to be captured within the literal scope of valid claims that are drafted broadly enough.").

Extrinsic evidence includes dictionaries used by one of ordinary skill in the art, treatises and expert testimony in the form of affidavits. Phillips, 415 F.3d at 1317.³

B. Expert Witnesses

With respect to expert witnesses, courts apply Rule 702 of the Federal Rules of Evidence and evaluate whether the testimony is helpful. Courts should also evaluate the credibility of the witness and consider whether the proffered opinions meet the

³ The Federal Circuit directed that courts should use dictionaries when necessary and useful, but with appropriate caution. See Innogenetics, 512 F.3d at 1371 (citing Phillips, 415 F.3d at 1321, for its cautionary language regarding elevation of dictionaries "to such prominence that it focuses the inquiry on the abstract meaning of the words rather than on the meaning of claim limitations").

standards set forth in Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579 (1993). Rule 702 provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. In addition, a court should not consider an expert's mere conclusory statements without analytical basis. Country Rd. Music, Inc. v. MP3.com, Inc., 279 F. Supp. 2d 325, 330 (S.D.N.Y. 2007).

Here, plaintiff has put forward an opinion by Peter Vinella. Vinella is "currently a Director at the Berkeley Research Group ("BRG"), an expert services and advisory firm." (Vinella Decl. ¶ 3, ECF No. 99.) He has worked in the financial services industry for over twenty-five years, including as a "senior executive in large financial institutions" and as the owner of a consultancy firm. (Id.) Vinella's career in finance began in the early 1980's in a risk management firm. (Raskin Decl. Ex. 3, at 1, ECF No. 100.) He has experience in "trading and investment management, risk management, quantitative analyses, operations, trading and investment-related accounting, [and] technology (including software development)." (Id.) He also has experience in a variety of investment products

including "equities, debt instruments, repo and sec lending, [and] listed and [over-the-counter] derivatives." (Id.) During 1995 and prior, he was a trading manager and arbitrage trader at Smith Barney Shearson, the Chief Information Officer for the same firm, and he co-founded and managed Berkeley Investment Technologies, an independent consultancy that later became a part of Drexel Burnham Lambert. (See id. at 6-7.) The Court finds that Vinella has relevant and useful experience during the period applicable to the construction of the terms at issue here.

Defendants' have proffered Gary L. Gastineau as an expert in this Markman proceeding. Gastineau also has relevant financial industry experience for the period 1995 and prior: in 1994 and 1995 he was employed by S.G. Warburg & Co. as a Senior Vice President/Head of Global Equity Derivatives Research. (Gastineau Decl. App'x 1, at 1-2, ECF No. 97.) He also held a variety of positions in which he worked in risk management and portfolio trading prior to 1995. (Id. at 2.) Gastineau is currently employed at ETF Consultants LLC where he provides specialized ETF consulting services to ETF issuers, exchanges and other markets, market makers, research organizations and investors. (Gastineau Decl. ¶ 3, ECF No. 97.) According to Gastineau, "a person of ordinary skill in the art of the patents-in-suit [would be] a person with a master's degree in

finance, financial engineering, or an equivalent field . . . and at least 3-4 years of recent experience in designing financial products." (Id. ¶ 13.) The Court disagrees with Gastineau's view regarding the pertinent qualifications: the priority date for the invention to which the claims relate is 1995. The most relevant experience for this particular proceeding is how one of ordinary skill in the art as of 1995 would have understood the terms at issue.

While Gastineau notes that ETFs were first introduced in the United States in 1993 (id. ¶ 15), "leveraged" ETFs did not appear commercially until much later, (see id.). Gastineau specifically states that because he does not believe leveraged ETFs existed prior to 2008, his opinions as to the meaning of "leveraged exchange traded product" and "leveraged portfolio of securities" is tied to the 2008 time period. (See id. ¶¶ 24-28.) For other terms, such as "representing," "weighting the selected securities within the exchange traded product," "a real time determined price," "trading," and "open ended," he grounds his opinion in 1995. (See id. ¶¶ 40-74.) The Court declines to consider Gastineau's opinions as to the meaning of terms in 2008. Those opinions are irrelevant to the task at hand.

C. EVIDENCE RELEVANT TO THE CONSTRUCTIONS AT ISSUE

In connection with construing the claims at issue in this matter, the Court has referred to both intrinsic and extrinsic

evidence. The Court's primary tool was, as the law requires, the language in the claims and specifications of the patents-in-suit. The Court has used extrinsic evidence only when these primary sources failed to provide a complete answer regarding the appropriate construction.

V. THE CONSTRUCTIONS

1. "Leveraged [exchange traded product/portfolio]"

Plaintiff's Proposed Construction:

"[exchange-traded product/portfolio] that uses various financial instruments or borrowed capital, such as margin, to increase the effective size of the operating position, which increases the potential return of an investment" (Terms in Dispute, at 1, ECF No. 138.)

NASDAQ's Proposed Construction:

"[exchange-traded product/portfolio] designed to track a benchmark by a consistent higher multiple of its return" (Id.)

The dispute between the parties with respect to this first term relates to the meaning of the term "leveraged" as used in the claims. The term "leveraged" appears in 15 claims in the '192 Patent and in six claims of the '422 Patent. (Id.)

An example of the use of this term is claim 6 of the '192 Patent:

A computer implemented system for exchanging shares in an exchange traded product, the system comprising:

A display for displaying data representing shares of an exchange traded product comprising a leveraged portfolio of securities satisfying market capitalization criteria, the securities within the portfolio being weighted, wherein the leveraged exchange traded product is configured for trading shares of the leveraged exchange traded product at a real

time determined price of the shares related to the underlying price of each of the selected securities comprising the leveraged exchange traded product and related to the respective weightings of the selected securities

'192 Patent col.8 ll.37-49.

The claim language at issue was first added to the patents in 2008. (See Belenky Decl., Ex. 4, ECF No. 96.) However, as stated above, the patent claims priority back to 1995. See '192 Patent at [63]. Therefore, the question is what the term "leveraged" meant in 1995 to one of ordinary skill in the art, in the specific context of the claim and specification language.

Plaintiff seeks to define "leverage" as conceptually related to increasing the size of the operating position. Vinella supports that use of the term "leverage" as of 1995. As he states, "leverage gives an investor a bigger-bang for the buck in that it amplifies the return on the investment." (Vinella Decl. ¶ 27, ECF No. 99 (emphasis in original).)

Defendants' expert, Gastineau, opines that as of 1995, leveraged ETPs did not exist. (Gastineau Decl. ¶ 20, ECF No. 97.) Thus, the terms "leveraged exchange traded product" or "leveraged portfolio of securities" did not have a customary and ordinary meaning in 1995. (Id.) However, inventions can (and should) have "new" features at the time of filing for their patents. That an invention did not exist before the patent at

issue, therefore, does not preclude construction of its claim terms.⁴

The term "leverage" is, in fact, used twice in the specification itself. '192 Patent col.2 l.41, col.3 l.34. In both instances, it is used consistently with its plain meaning: amplifying the risk/return on capital.⁵ For instance, when describing current disadvantages that the invention was intended to address, the specification states: "Open end funds are not traded on an exchange so investors cannot leverage their investments through the trading of derivative securities." Id. col.2 l.41. This language is paralleled in the description of the advantages of the invention, which notes that the invention will enable investors "to leverage their investments." Id. Col.3 l.34.

The question, then, is whether the patentees intended the use of the term "leverage" in the claims to be similar to the specification's uses of the term "leverage," which do relate to the amplification of an investor's risk/return on capital. As a matter of law, words in the specification and claims are

⁴ Defendants' argument is better directed at a motion regarding written description.

⁵ This definition is also consistent with the dictionary definition of the word "leverage" published in a financial industry dictionary by defendants' expert Gastineau in 1996. See Gary L. Gastineau & Mark P. Kristman, Dictionary of Financial Risk Management 168 (1996) (defining "leverage" as "[a]n investment or operating position subject to a multiplier effect on profit or position value from a small change in sales quantity or price").

considered to be used similarly unless specifically stated otherwise. See Phillips, 415 F.3d at 1315.

The use of the term "leveraged" in claim 6 refers to investors having an ability to do precisely that which is described as an advantage of the invention: to "leverage" their investment by increasing the size of their operating positions. See '192 Patent col.8 ll.37-55.

In addition, other references in the specification that do not specifically use the term "leverage" refer to that same concept. As Vinella states, to one of ordinary skill in the art (at the appropriate point in time), the specification's reference to an "index of securitized funds . . . including puts and calls, futures, caps and floors, total return swaps, collars, warrants, equity swaps, swaptions, knock-out options and variation[s] thereof," where each of these would be understood to one of ordinary skill in the art to be capable of adding leverage to a portfolio, does not limit the use of the concept of "leverage" to tracking a benchmark to a higher multiple of its return. (Vinella Decl. ¶ 49, ECF No. 99 (quoting '192 Patent col.7 ll.63-67) (internal quotation marks omitted).) Vinella also notes that the specification's reference to "hybrid, illiquid securities" could also be understood by one of ordinary skill in the art to be referring

to a leveraged position. (Id. ¶ 50 (quoting '192 Patent col.6 ll.48-49) (internal quotation marks omitted).)

The Court rejects defendants' arguments that it must refer to the usage of the term leveraged in connection with the ProShares ETP products (as of 2008), which would support their construction. Defendants also argue that the word "leveraged" (with a "d") and used as an adjective, should be distinguished from the term "leverage," as a noun or verb. According to defendants, the use of the adjective "leveraged" means that whatever activity is attributed to that "leveraging" has already occurred - it is "leveraged." (See Defs.' Opening Claim Construction Br. 8-9 ("Defs.' Opening Br."), ECF No. 95.) Thus, if this Court follows defendants' argument, the term "leveraged ETPs" could not refer to the "act" of investing in borrowed funds, because that would be "to leverage" or "leverage." This reasoning parses the word "leverage" unduly narrowly. A portfolio "leveraged" under plaintiff's definition of the term has no less of a "d" than one leveraged under defendants' definition. No argument defendants have proffered changes the fact that plaintiff also provides a definition of the term "leveraged" that comports with its ordinary meaning and usage. See Phillips, 415 F.3d at 1312. The Court declines to adopt a narrower construction of the term.

Accordingly, the Court adopts plaintiff's proposed construction for this term.

2. "[Leveraged] portfolio of securities"

Plaintiff's Proposed Construction:

"a portfolio of securities (such as stocks, bonds, mutual fund shares, etc.) which is created using leverage or to create leverage (as 'leverage' is defined above)" (Terms in Dispute, at 1, ECF No. 138.)

NASDAQ's Proposed Construction:

"portfolio of mutual funds [designed to track a benchmark by a consistent higher multiple of its return]" (Id. at 1-2.)

This term appears in three claims in the '192 Patent and in one claim in the '422 Patent. (Id. at 1.) The parties' dispute with respect to this term relates to whether the "portfolio" may be comprised of any type of security, or whether it is limited to mutual funds. The specification makes clear that the invention at issue relates primarily to solving the problem of intra-day trading of open end mutual funds. See '192 Patent col.2 1.65-col.3 1.4. The question more directly is whether the system developed is limited to only mutual funds or can extend to a system that can be applied to other types of securities as well. As a matter of law, it is inappropriate to import "limitations from the specification into the claims." Phillips, 415 F.3d at 1323; see also SRI Int'l v. Matsushita Elec. Corp. of Am., 775 F.2d 1107, 1121 n.14 (Fed. Cir. 1985) (en banc).

As seen above in the excerpt of claim 6, the language used in the claim itself is the broad phrase "portfolio of securities." '192 Patent col.2 ll.40-41.

The ordinary usage of the term "security" goes back to at least 1940 -- decades before the invention here at issue. See, e.g., Investment Company Act of 1940, 15 U.S.C. § 80A-2(a)(36). That ordinary usage encompasses not only mutual funds, but any type of security including, inter alia, derivatives, puts or calls, options, or warrants. See id.; (Vinella Decl. ¶ 55, ECF No. 99). Many of these types of securities are explicitly mentioned in the specification. '192 Patent col.7 ll.63-67.

As an initial matter, given the multiplicity of instances in which the term "mutual fund" is used, if the inventors wanted to limit the claim to mutual funds only, they certainly knew how to make that clear. See generally id. col.1 l.16-col.2 l.61 (Background of the Invention). Instead, when it came to the claims, the word "securities" was used, and it was based on that term that the invention was approved by the U.S. Patent Office.

Language in the specification is broad enough to capture many different types of securities. For instance, the specification states:

While the above description contains many specific examples, these should not be construed as limitations on the scope of the invention, but rather as an exemplification of one preferred embodiment. Many variations are possible. For example, instead of creating a closed end fund of funds, a unit investment

trust could be created to replicate the performance of an open end fund or group of funds. While this security could have large swings in its capitalization level, it nevertheless may be able to replicate the performance of an open end fund or group of funds, and act as a hedge for listed derivative securities.

'192 Patent col.7 ll.48-58. There is no requirement that this unit investment trust include only mutual funds. Later in the specification it states that, "[i]n addition, an index of securitized funds, as well as linked derivative securities including puts and calls, futures, caps and floors, total return swaps, collars, warrants, equity swaps, swaptions, knock-out options and variation[s] thereof could be traded." Id. col.7 ll.63-67.

The specification also refers to a "master database" of mutual funds. Id. col.4 l.30. According to Vinella, one skilled in the art would know that a "master" database of mutual funds would have included both mutual funds and their portfolio compositions. (Vinella Decl. ¶ 58, ECF No. 99.) Finally, the doctrine of claim differentiation supports plaintiff's construction as well. See generally Phillips, 415 F.3d at 1314.

Accordingly, the Court adopts the plaintiff's proposed construction for this term.

3. "Leveraged exchange traded portfolio"

Plaintiff's Proposed Construction:

"[L]everaged exchange traded portfolio" is a drafting error and should be read "leveraged portfolio." (Terms in Dispute, at 2, ECF No. 138.)

NASDAQ's Proposed Construction:

The term is incapable of being construed and is indefinite under 35 U.S.C. § 112 ¶ 2. (Id.)

AND

4. "Leveraged exchange traded computer"

Plaintiff's Proposed Construction:

"[L]everaged exchange traded computer" is a drafting error and should read "exchange computer." (Id.)

NASDAQ's Proposed Construction:

The term is incapable of being construed and is indefinite under 35 U.S.C. § 112 ¶ 2. (Id.)

As to both the term "leveraged exchange traded portfolio," and "leveraged exchange traded computer," plaintiff asserts that a drafting error resulted in the insertion of additional words. In particular, plaintiff suggests that the first term should be only "leveraged portfolio," dropping the interstitial "exchange traded" phrase. The second term, plaintiff contends, should be "exchange computer," dropping the words "leveraged" and "traded." Defendants argue that the addition of these words renders the claims incapable of being construed and that they are therefore indefinite under 35 U.S.C. § 112.

Both terms appear in the '422 Patent, claims 18 and 22. Claim 18 states: "The computer implemented system of Claim 1 wherein the **leveraged exchange traded computer** is further

configured to list derivatives available for purchase or sale, the derivatives having price related to the real-time determined price of the leveraged exchange traded product." '422 Patent col.9 ll.6-10 (emphasis added).

Claim 22 states: "The computer implemented system of claim 1 further comprising a processor for correlating the price of the shares to the price of the securities within the **leveraged exchange traded portfolio**." Id. col.10 ll.7-10 (emphasis added).

In support of its position that the inclusion of extra words is a drafting error, plaintiff points to the fact that each term appears only once across both patents-in-suit: in the claim in which they appear. (See Pl.'s Opening Claim Construction Br. 29 ("Pl.'s Opening Br."), ECF No. 98.) In addition, plaintiff points to the Vinella's statement that one of ordinary skill in the art would understand the phrases in fact to mean "leveraged portfolio" or "exchange computer." (Vinella Decl. ¶ 64, ECF No. 99.)

The Federal Circuit has held that when a harmless error has occurred in drafting a patent, it can be corrected by the court. See Hoffer v. Microsoft Corp., 405 F.3d 1326, 1331 (Fed. Cir. 2005); Novo Indus., L.P. v. Micro Molds Corp., 350 F.3d 1348, 1354 (Fed. Cir. 2003). If a court does correct an "error," the correction should not be subject to reasonable debate based on

language in the claim and specification. See Novo Indus., 350 F.3d at 1354.

Defendants spend only one paragraph in their opening brief on claim construction discussing both of these terms -- simply asserting that they are incapable of being construed and therefore are indefinite. (See Defs.' Opening Br. 12, ECF No. 95.) Similarly, they spend one more paragraph on these terms in their responsive brief (Defs.' Resp. Claim Construction Br. 11-12 ("Defs.' Resp. Br."), ECF No. 112), and again state the legal proposition that the terms are indefinite. (In their responsive brief, defendants do add that plaintiff could have sought a certificate of correction but did not do so. (Id.))

It is clear from the use of the phrases throughout the specification that "leveraged portfolio" and "exchange computer" are what was intended by the inventors. Those terms are used repeatedly and form important aspects of the invention. See, e.g., '422 Patent at [57] (referring to "leveraged portfolio of securities" and "exchange computer"); id. fig.2, item 62 (referring to "exchange computer").

Defendants have not offered any reason why the correction of this claim language would be unreasonable. The Court finds that repetitive use of the phrases "exchange traded" and "leveraged portfolio" throughout the '422 Patent specification and claims require the conclusion that a drafting error

occurred. The Court agrees with plaintiff that these terms should be construed as it has proposed -- and the words included in obvious error eliminated.

5. "Representing"

Plaintiff's Proposed Construction

This term is clear on its face and need not be construed. (Terms in Dispute, at 2, ECF No. 138.)

NASDAQ's Proposed Construction

"to stand for or symbolize" (Id.)

The term "representing" appears in claims 1 and 6 of the '192 Patent as follows:

1. . . . a computer memory comprising . . . a computer database containing data representing characteristics of a plurality of securities

6. . . . a display for displaying data representing shares of an exchange traded product

'192 Patent col.8 ll.9-40. In total, the term appears in six claims of the '192 Patent and in one claim of the '422 Patent. (Terms in Dispute, at 2, ECF No. 138.)

The parties do not dispute that the phrase "to stand for or symbolize" is appropriately one of the definitions of "represent." Plaintiff takes issue with what it asserts is an unduly premature truncation of the dictionary definition to only that phrase. The Court agrees. In any event, there is no need to construe this term. Here, there is no serious debate

regarding its meaning, and lack of construction by this Court will not confuse the jury. Courts should not construe terms that are plain on their face, and this one is. See W.E. Hall Co. v. Atlanta Corrugating, LLC, 370 F.3d 1343, 1350 (Fed. Cir. 2004); Parker-Hannifin Corp. v. Baldwin Filters, Inc., No. 1:07-CV-1709, 2008 WL 5732941, at *15 (N.D. Ohio July 3, 2008).

Accordingly, the Court agrees that no construction of this term is necessary.

6. "Configured for trading [of] shares of the leveraged exchange traded product at a real time determined price of the shares related to the underlying price of each of the selected securities comprising the leveraged exchange traded product and related to the respective weightings of the securities"

Plaintiff's Proposed Construction:

"configured for trading of shares of the leveraged exchange traded product at a price mutually agreed upon by investors, the price being related to the underlying prices of all underlying securities comprising the leveraged exchange traded product as they have been weighted" (Terms in Dispute, at 2-3, ECF No. 138.)

NASDAQ's Proposed Construction:

"configured for trading of shares of the leveraged exchange traded product, at a price calculated in real time using the underlying prices of all underlying securities comprising the leveraged exchange traded product as they have been weighted" (Id.)

The dispute between the parties relates to how the "real time determined price" is calculated. (See Hr'g Tr. 97:11-110:14.) The term "real time determined price" appears in two

claims of the '192 Patent and in one claim of the '422 Patent. (Terms in Dispute, at 4, ECF No. 138.) According to plaintiff, the price is not necessarily determined by a precise algorithm as defendants suggest, but instead by the actions of market participants. (See Pl.'s Resp. Claim Construction Br. 20, ECF No. 107.) According to plaintiff, the entirety of the patent teaches away from calculating the value of the securities on the basis of their NAV. (Id.) The Court agrees.

Defendants urge that that the prices of the shares of the new ETP have to be related to the price and weightings of the underlying securities. According to defendants, the only way that this can be accomplished is through the use of a "known algorithm where the algorithm ensures that the price of the ETP is related to the price and weightings of the underlying securities." (See Defs.' Resp. Br. 20, ECF No. 112.)

Defendants do not point to any language in the claims or specification supportive of the requirement of a known algorithm or formula for calculating price. Instead, their proposal relates to what they assert must occur as a result of how the invention is structured to work.

Plaintiff points to language that appears throughout the specification, which refers to the new security "replicat[ing]" the performance of those shares purchased with a high degree of correlation and consistency. See, e.g., '192 Patent col.3

11.11-14. This replication does not require exactness; it requires a correlation. Nothing in the specification states that this correlation will be achieved by use of a known algorithm, and to impose such a construction would impose a double limitation: the requirement of both an algorithm and a known one at that.

At the Markman hearing, defendants moved away from the requirement of an algorithm and took the position that the price would need to be calculated in real time using the underlying prices of all of the underlying securities as they had been weighted. (See Hr'g Tr. 98:4-12; Terms in Dispute, at 3, ECF No. 138.) This proposal ignores broader language in the specification. First, when discussing the pricing of the new security, the specification describes investors "who then buy and sell the synthetic fund shares intra-day at any mutually agreed upon price (which is used by the market participants to derive the price of linked derivative securities)." '192 Patent col.7 11.10-13. This language contemplates that buyers and sellers have breadth in determining the appropriate sales price. Further, the invention describes the potential for the creation of a unit investment trust to replicate the performance of an open end fund or group of funds. This unit investment trust "may be able to replicate the performance of an open end fund or group of funds, and act as a hedge for listed derivative

securities." Id. col.7 ll.56-58. There is no requirement that the pricing of this unit investment trust be determined in a particular way. Indeed, the language in the specification is permissive (e.g., "may," id. col.7 l.56) when discussing the replication of the performance of the open end fund or group of funds. Precision is not required.

The Court agrees that the specification teaches away from a requirement that pricing be tied to the NAV. Accordingly, plaintiff's proposed construction is adopted for this term.

7. "Trading"

Plaintiff's Proposed Construction:

The term is clear on its face and need not be construed. (Terms in Dispute, at 4, ECF No. 138.)

NASDAQ's Proposed Construction:

"buying and selling on a public exchange by investors" (Id.)

The term "trading" appears in six claims of the '192 Patent and in two claims of the '422 Patent. (Id.) The difference between the plaintiff's and defendants' proposed constructions relates to whether trading needs to occur on an exchange. Defendants assert that trading must occur on a public exchange. (See Defs.' Opening Br. 20, ECF No. 95.) This construction would exclude off-floor trading. (Id.)

Plaintiff urges that no construction is needed -- the term is clear on its face.

The term "trading" is used throughout the specification. In the Abstract, the first line describes the invention as a "mutual fund securitization process permitting the trading of open end mutual funds and linked derivative securities on or off the floor of a National Securities Exchange." '192 Patent, at [57]. In the description of the object and advantages of the invention, an investor's ability to trade electronically is mentioned. Id. col.3 l.42. The language of electronic trading is not tied to a public exchange. In addition, the specification notes that the securities created by the invention "could be traded through the Over the Counter Market, which is located off the exchange floor." Id. col.7 l.67-col.8 l.1.

There are repeated references to trading in the claims. For instance, claim 1 refers to "wherein the leveraged exchange traded product is configured for trading of shares of the leveraged exchange traded product at a real time determined price." Id. col.8 ll.18-20.

The patents, on their face, are plainly inconsistent with defendants' contention that "trading" must occur on an exchange. The Court believes that "trading" should be construed according to its plain and ordinary meaning. The Court therefore adopts plaintiff's proposed construction of this term.

8. "Securities [. . .] satisfy[ing]"

Plaintiff's Proposed Construction:

This term is clear on its face and should be construed in accordance with the plain claim language. (Terms in Dispute, at 4, ECF No. 138.)

NASDAQ's Proposed Construction:

These terms are incapable of being construed and are indefinite under 35 U.S.C. § 112 ¶ 2. (Id.)

The language of "securities [. . .] satisfy[ing]" is used in claims 6, 25, 40, 45 and 63 of the '192 Patent and claim 1 of the '422 Patent. (Id.) The concept of "securities [. . .] satisfy[ing]" refers back to the concept set forth in the specification regarding the selection process for the securities that become part of the closed end fund. For instance, claim 6 of the '192 Patent describes, in relevant part, "an exchange traded product comprising a leveraged portfolio of securities satisfying market capitalization criteria." '192 Patent col.8 11.39-41. Claim 25 of the same patent refers to "[t]he computer implemented system of claim 6 wherein the securities within the leveraged portfolio satisfy a user defined risk criteria." Id. col.9 11.57-59.

Defendants argue that this language is indefinite and fails under 35 U.S.C. § 112. Defendants do not support their position with an expert opinion. Instead, they rely on the argument that insoluble ambiguity comes from the question of whether it is

each security that must be evaluated as to whether it satisfies certain criteria, or whether all of the securities in a fund must satisfy certain criteria. This Court disagrees that this creates an insoluble ambiguity. It is clear, and not nearly as problematic as defendants suggest, that both can be true and still fit well within the invention disclosed.

As a matter of law, patents are entitled to a presumption of validity. 35 U.S.C. § 282. That presumption can only be overcome with clear and convincing evidence. Microsoft Corp. v. i4i Ltd. P'ship, 131 S. Ct. 2238, 2242 (2011). The language in the claims (two exemplars of which are set forth above), follows from the very lengthy description in the specification which sets forth all of the various data and criteria that can be used to establish an appropriate closed end fund. Once criteria such as risk profile, return, or many other variables are determined, securities satisfying those criteria are selected for the closed end fund. The invention allows for a wide selection of criteria to be used to create a new synthetic security, a closed end fund. There is no requirement that such criteria must be applied on a per security basis or on a per fund basis, and no requirement that they not be. The language of the claims and specifications is broad enough to encompass both.

Accordingly, the Court does not find that the language is insolubly ambiguous and adopts plaintiff's proposed construction.

9. "Securities/derivatives . . . hav[e/ing]"

Plaintiff's Proposed Construction:

This term is clear on its face and should be construed in accordance with the plain claim language. (Terms in Dispute, at 4-5, ECF No. 138.)

NASDAQ's Proposed Construction:

These terms are incapable of being construed and are indefinite under 35 U.S.C. §112 ¶ 2. (Id. at 4)

This term appears in three claims of the '192 Patent and in two claims of the '422 Patent. (Id.) Defendants claim that this term is insolubly ambiguous but provide no real analysis. As with the term discussed above regarding "securities [. . .] satisfy[ing]," the specification describes an invention in which the securities/derivatives have certain characteristics. The characteristics, in turn, correspond to any number of criteria. The Court agrees that in the context of the patents-in-suit, the term is clear on its face and does not need to be construed further.

10. "Open ended"

Plaintiff's Proposed Construction:

An "open-ended" investment product is one "where shares can be issued and redeemed at any time, i.e. [] where the number of shares that can issue is not restricted." (Id. at 5.)

NASDAQ's Proposed Construction:

"having outstanding a non-fixed number of individually redeemable shares, of which any trade must occur at the net asset value computed after an order to purchase or sell" (Id.)

"Open ended" appears in three claims of the '192 Patent and in one claim of the '422 Patent. (Id.) There are two disputes between the parties as to the proper construction of this term: whether shares must be traded at NAV, and whether they must be individually redeemable. Plaintiff offers a construction that conflates the type of trading that the invention anticipates would be able to occur (e.g., where shares can be redeemed at any time) and the allowable trading of open end fund shares in 1995. The specific problem that the invention sought to solve was an inability to engage in intra-day trading of open end fund shares.

The specification states as a problem to be addressed by the invention that:

Open end funds are required by law to sell their shares at the net asset value (N.A.V.), which represents the total assets owned by the fund, less the total liabilities, divided by the number of shares outstanding, plus a sales charge (also known as a sales load). When buying back their shares, open end funds must, by law, buy back shares at their fund's N.A.V.

'192 Patent col.1 ll.24-30. There are a number of additional references to obstacles of open end funds trading at prices other than their NAV. See id. col.1 ll.40-43, col.2 ll.26-28.

The intrinsic evidence therefore leads to the conclusion that the expectation at the relevant time of the invention (1995) was that open end funds traded at their NAV. (See also Gastineau Decl. ¶ 74, ECF No. 97.)

In terms of whether the shares had to be individually redeemable, the specification again leads to the conclusion that, in 1995, they did. First, the language referred to above makes it clear that the calculation of value for a sale at NAV was based upon the simple math of taking assets, less liabilities, and dividing them by the number of shares in the fund. Thus, shares were treated as individual units. However, the specification does not state clearly that individual redemption is required.

Gastineau states that as of 1995, one of ordinary skill in the art would have understood that the shares in open end funds had to be individually redeemable and could not, for instance, be redeemed in something called a "creation unit" (creation unit-size is the minimum number of shares that can be created or redeemed). (See Gastineau Decl. ¶¶ 66-68, ECF No. 97.)

Plaintiff urges that a definition of open ended funds which requires trading at a share's NAV ignores the import of the invention, which is to enable trading apart from an NAV. (See Pl.'s Opening Br. 50, ECF No. 98.) This argument conflates two distinct concepts. On the one hand are open end funds and the

issues they faced with respect to intra-day trading (based on a need to calculate NAV); on the other hand is the solution put forth by the invention, which was the creation of a new, separate synthetic security that would preferably be a closed end fund of funds. See '192 Patent at [57]. Nothing in the specification or claims suggests that open end funds could be traded at anything other than their NAV. By contrast, the closed end fund could be. That is a key distinction.

For the reasons set forth above, the Court adopts defendants' proposed construction for this term.

11. "Exchange clearing computer"

Plaintiff's Proposed Construction:

"a computer system that concludes or settles the exchange of securities by reconciling orders between transacting parties" (Terms in Dispute, at 4-5, ECF No. 138.)

NASDAQ's Proposed Construction:

"a computer owned or operated by an exchange that clears trades" (Id.)

The dispute between the parties regarding the proposed construction for this term relates to whether what is referred to as an "exchange clearing computer" must be owned and operated by an exchange, as defendants propose, or whether the computer is merely referring to settling exchanges of securities between buyers and sellers as plaintiff proposes. The term "exchange

clearing computer" appears in three claims of the '192 Patent and in one claim of the '422 Patent. (Id.)

The inventions set forth in the patents-in-suit require that an exchange computer transmit data relating to intra-day trades to an exchange clearing computer. The parties agree that the exchange clearing computer clears trades, but are in disagreement as to who owns or operates it.

Claim 6 of the '192 Patent refers to transmitting data intra-day "over a communication network to an exchange clearing computer." '192 Patent col.8 ll.54-55. Similarly, claim 40 of the '192 Patent refers to "an exchange computer for processing the exchange of the shares at a price related to the price of the securities within the leveraged portfolio, wherein the exchange computer is configured to transmit data indicative of trades which occur intra-day over a communication network to an exchange clearing computer." Id. col.11 ll.8-13.

The specification states that "Box 64 [of Fig.2] represents the electronic data link between the N.S.E. clearing computer, which keeps track of the exchange trades that occur during the day, and the closed end synthetic fund." Id. col.7 ll.21-24.

Neither the claims nor the specifications contain any requirement regarding what entity owns or operates the "exchange clearing computer." The function of the computer -- to clear the shares exchanged -- is what is of importance to the

invention; not who operates it. Indeed, there is nothing in the specifications or claims that would prohibit that function being outsourced to a third-party vendor. If defendants' construction were the appropriate one, the term "exchange" should instead be "exchange's" -- indicating a definitive connection. That possessive language is nowhere present.

Accordingly, the Court adopts plaintiff's proposed construction for this term.

VI. CONCLUSION

The claims at issue are construed as set forth above. For purposes of clarity, the Court provides the construction for each of the disputed terms (except those that are the subject of a separate summary judgment motion) below:

<u>Term</u>	<u>Construction</u>
"leveraged [exchange traded product/portfolio]"	[exchange-traded product/portfolio] that uses various financial instruments or borrowed capital, such as margin, to increase the effective size of the operating position, which increases the potential return of an investment

"[leveraged] portfolio of securities"	a portfolio of securities (such as stocks, bonds, mutual fund shares, etc.) which is created using leverage or to create leverage (as "leverage" is defined above [in this opinion])
"leveraged exchange traded portfolio"	"[L]everaged exchange traded portfolio" is a drafting error and should be read "leveraged portfolio."
"leveraged exchange traded computer"	"Leveraged exchange traded computer" is a drafting error and should read "exchange computer."
"representing"	This term is clear on its face and need not be construed.
"configured for trading [of] shares of the leveraged exchange traded product at a real time determined price of the shares related to the underlying price of each of the selected securities comprising the leveraged exchange traded product and related to the respective weightings of the selected securities"	configured for trading of shares of the leveraged exchange traded product at a price mutually agreed upon by investors, the price being related to the underlying prices of all underlying securities comprising the leveraged exchange traded product as they have been weighted
"trading"	This term is clear on its face and need not be construed.
"securities [. . .] satisfy[ing]"	This term is clear on its face and should be construed in accordance with the plain claim language.

"securities/derivatives . . . hav[e/ing]"	This term is clear on its face and should be construed in accordance with the plain claim language.
"open ended"	having outstanding a non-fixed number of individually redeemable shares, of which any trade must occur at the net asset value computed after an order to purchase or sell
"exchange clearing computer"	a computer system that concludes or settles the exchange of securities by reconciling orders between transacting parties

SO ORDERED:

Dated: New York, New York
September 14, 2012

Katherine B. Forrest

KATHERINE B. FORREST
United States District Judge